REMARKS

The Office Action dated June 28, 2004, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claim 1 has been amended to more particularly point out and distinctly claim the subject matter of the invention. Support for the change to claim 1 may be found in the specification, for example, on page 102, line 4 to page 103, line 29. New claim 7 is added. No new matter is added by these amendments. Thus, claims 1-7 are pending in the present application, and are respectfully submitted for consideration.

Claims 1-6 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The Office Action alleged that the feature of "module headers having module identifier fields" was confusing. Applicants have amended the claims to reflect the language in the specification, e.g., page 102, line 4 to page 103, line 29. Applicants submit that this amendment does not limit the subject matter of the claims, and the claims are entitled their full range of equivalents. Therefore, this rejection is rendered moot. Applicants respectfully request that the indefiniteness rejection be withdrawn.

Claims 1-2 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,909,686 (*Muller et al.*) (hereinafter *Muller I*) in view of U.S. Patent No. 6,188,694 (*Fine et al.*) The Office Action took the position that *Muller I*

taught all the features of claim 1 except "that the headers comprise 'module identifier fields.'" The Office Action then took the position that *Fine* "teaches a header that comprises '[a] switch ID field.'" The Office Action alleged that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the switch ID field disclosed by *Fine* into *Muller's* method in order to control transmission of data packets in the network." Applicants submit that the cited references of *Muller I* and *Fine*, either alone or in combination, do not disclose or suggest all the features of claims 1-6.

Claim 1, upon which claims 2-6 are dependent, recites a network switch stack configuration. The configuration includes a first network switch comprising a plurality of data ports, a first stacking port, and a first CPU interface. The configuration also includes a set network switch having a plurality of data ports, a second stacking port, and a second CPU interface. The configuration also includes a common CPU connected to the first CPU interface and the second CPU interface. The first stacking port and the second stacking port are communicatively connected, such that incoming packets on any of the plurality of data ports on the first and second switches are effectively switched to any of the plurality of data ports on either of the first and second network switches. The first and second switches add module headers having module fields to the incoming packets and the first and second stacking ports read the module headers to determine egress ports for the packets.

As discussed in the specification, examples of the present invention enables incoming packets on any of a plurality of data ports on a first a second switches to be effectively switched to any of a plurality of data ports on either of the first and second network switches. Thus, examples of the present invention include a switch suitable for use in Ethernet, fast Ethernet, gigabit Ethernet and other types of network environments that require high performance switching of data packets or data cells. It is respectfully submitted that the cited references, when viewed alone or when combined, fail to disclose or suggest the elements of any of the presently pending claims. Therefore, the cited references fail to provide the critical and unobvious advantages discussed above.

Muller I relates to hardware assisted central processing unit access to a forwarding database. A switch fabric provides access to a forwarding database on behalf of a processor, and includes a memory access interface configured to arbitrate access to a forwarding database memory. The switch fabric includes interfaces for communicating with a CPU, shared memory, network ports and a cascading interface communicating with one or more switch elements. *Muller I* describes a generic packet header 499 that is partitioned into four portions, an L2 header portion 475, an L2 encapsulation portion 480, an L3 address independent portion 485, and an L3 address dependent portion 490. The L2 and L3 portions of the generic packet header access layer 2 and layer 3 databases. *Muller I* also describes using a search key from the portions of the generic packet header to match with associative data and associated data. The associated data contains information such as an indication of the output ports to which the packet may be

forwarded. *Muller I,* however, does not disclose first and second switches to add module headers having module header fields to incoming packets and first and second stacking ports that read the module headers to determine egress ports for the packets.

Fine relates to a shared spanning tree protocol to create a plurality of spanning trees, or loop-free paths, that are shared among one or more virtual local area network (VLAN) designations for data transmissions. Referring to Figure 3B, *Fine* describes a bridge protocol data unit 340 that includes a tag field 342. Bridge protocol data unit 340 includes a route ID field 352 that contains the identifier of the switch assumed to be the root switch and a switch ID field 354 that contains the identifier of the switch transmitting bridge protocol data unit 340. *Fine* also describes header 302 that allows frames 300 to be transmitted over links configured to carry bridge protocol data units 340. Frames 300 and bridge protocol data units 340 are sent separately to switches within a network. *Fine* describes switches receiving and processing bridge protocol data units 340 and eventually converging with the selection of a single route for each primary VLAN designation. *Fine,* however, does not disclose or suggest first and second switches that add module headers having module header fields to incoming packets and first and second stacking ports that read the module headers to determine egress ports for the packets.

In contrast, claim 1 recites "the first stacking port and the second stacking port are communicatively connected, such that incoming packets on any of the plurality of data ports on the first and second switches are effectively switched to any of the plurality of

data ports on either of the first and second network switches and wherein the first and second switches add module headers having module header fields to the incoming packets and the first and second stacking ports read the module headers to determine egress ports for the packets." Applicants submit that the cited references, either alone or in combination, do not disclose or suggest at least these features of the pending claims.

The Office Action alleged that switch ID field 354 of *Fine* taught module identifier fields. Applicants respond by submitting that the module header fields, as currently recited in claim 1, are not disclosed or suggested by this aspect of *Fine*. The switch ID field of *Fine* is in a bridge protocol data unit, not a header. Further, the switch ID does not facilitate determining egress ports for a packet, or even the bridge protocol data unit. As noted above, *Fine* does not send bridge protocol data units 340 as packets but, instead, sends frames 300. Further, as stated in *Fine*, switch ID field 354 "contains the identifier of the switch transmitting" bridge protocol data unit 340 and not any destination or egress ports. Applicants submit that switch ID field 354 does not disclose or suggest determining egress ports for bridge protocol data unit 340. Thus, *Fine* does not disclose or suggest at least these features of the pending claims.

Applicants also submit that the Office Action does not provide any evidence of a motivation or suggestion to combine the references. As noted above, *Muller I* describes a generic packet header that does not disclose or suggest applicants' claimed module header. *Muller I* describes the generic packet header as having portions that are used to associate data. *Fine* describes the switch ID field as an identifier of a switch transmitting

a bridge protocol data unit. The Office Action does not provide any evidence to modify the portions of the generic packet header of *Muller I* with a bridge protocol data unit or a switch ID field to identify a switch of *Fine*. The generic packet header of *Muller I* does not identify switches. Further, the bridge protocol data unit of *Fine* is not a packet having a header. If a proposed modification would render the prior art invention being modified unsatisfactorily for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP 2143.01. Thus, applicants submit that the cited references do not disclose or suggest all the claim limitations. Applicants respectfully request that the obviousness rejection of claims 1 and 2 be withdrawn.

Claims 3-6 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Muller I* in view of U.S. Patent No. 6,119,196 (*Muller et al.*) (hereinafter *Muller II*). The Office Action took the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the bandwidth allocating method disclosed by *Muller II* into *Muller I*'s system for utilizing the bandwidth of the system in order to maximize data transmission through the system. Applicants submit that the cited references of *Muller I* and *Muller II*, either alone or in combination, do not disclose or suggest all the features of the presently pending claims.

Claims 3-6 depend from claim 1. Claim 1 is summarized above and is allowable over *Muller I* and *Muller II* for the reasons disclosed above. Specifically, *Muller II* does not disclose or suggest those features of claim 1 missing from *Muller I*.

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Muller II relates to a method and apparatus for managing a buffer memory in a packet switch that is shared between multiple ports in a network system. *Muller II* describes an apparatus that has a plurality of slow data port interfaces configured to transmit data at a first data rate between a slow data port. *Muller II* also describes a buffer memory and a plurality of fast data port interfaces configured to transmit data at a second data rate between a fast data port and a buffer memory. A first level arbiter is coupled to the plurality of slow data port interfaces, where the first level arbiter chooses an access request of one of the slow data ports and outputs the access request. *Muller II*, however, does not disclose or suggest first and second switches that add module headers having module header fields to incoming packets and first and second stacking ports that read the module headers to determine egress ports for the packets.

In contrast, claim 1 recites "the first stacking port and the second stacking port are communicatively connected, such that incoming packets on any of the plurality of data ports on the first and second switches are effectively switched to any of the plurality of data ports on either of the first and second network switches and wherein the first and second switches add module headers having module header fields to the incoming packets and the first and second stacking ports read the module headers to determine egress ports for the packets." Applicants submit that the cited references do not disclose or suggest at least these features of claim 1.

The Office Action conceded that *Muller I* does not disclose or suggest all the features of claim 1. Because claims 3-6 depend from claim 1, and the Office Action does

not allege that *Muller II* discloses or suggests those features missing from *Muller I*, applicants submit that claims 3-6 are allowable over the cited references for at least this reason. Further, because claim 1 is non-obvious, claims 3-6 also are non-obvious. If an independent claim is non-obvious, then any claim depending therefrom also is non-obvious. MPEP 2143.03. For at least these reasons, applicants submit that claims 3-6 are allowable over the cited references, and respectfully request that the obviousness rejection of claims 3-6 be withdrawn.
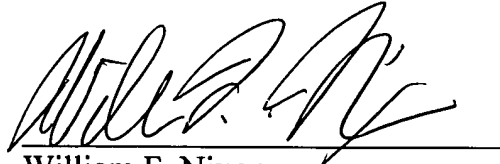
New claim 7 recites is submitted, and is allowable at least for the reasons given above. Claim 7 recites a method that is not disclosed or suggested by the cited references. It is respectfully submitted that each of claims 1-7 recite subject matter that is neither disclosed nor suggested by the cited references, either alone or in combination. It is therefore respectfully requested that all of claims 1-7 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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